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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,254	12/12/2003	Kevin Cowles	IBM1P046A/SJO9000001US2	9799

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ZILKA-KOTAB, PC  
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EXAMINER
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KIM, PAUL D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,254

Applicant(s)

COWLES ET AL.

Examiner

Paul D. Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 17-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is a response to the election of species filed on 4/28/2005.

#### ***Response to the Election of Species***

1. Applicant's election without traverse of Species A, drawn to Fig. 2, claims 1-16, in the reply filed on 4/28/2005 is acknowledged.
2. Claims 17-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/28/2005.

#### ***Specification***

3. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet. Correction is required. See MPEP § 608.01(b).

#### ***Claim Objections***

4. Claims 2-16 are objected to because of the following informalities: The phrase "A method" as recited in line 1 should be --The method--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4, 5 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Chakravorty et al. (US PAT. 6,565,730).

Chakravorty et al. teach a process of making conductive connection between conductive layers comprising steps of: exposing portions of at least two conductive layers (125) separated by a dielectric layer (130) as shown in Fig. 1C; applying a conductive material (135) to the exposed portions of the conductive layers, the conductive material creating an electrical coupling between the conductive layers as shown in Fig. 1D; and grounding (160) at least one of the conductive layers to a controlled ground potential as shown in Fig. 1F (see also col. 3, line 49 to col. 6, line 65).

As per claim 2 the portions of the conductive layers are exposed by recessing (105 as shown in Fig. 1A) at least one of the conductive layers and any dielectric layers positioned between the conductive layers, the conductive material overhanging an uppermost of the conductive layers as shown in Fig. 1D.

As per claim 4 the conductive material is a conductive adhesive such as copper paste.

As per claim 5 one of the conductive layer is grounded to a controlled ground potential using one or more dedicated ground paths etched from one or more of the conductive layers as shown in Fig. 1F.

As per claim 12 one of the conductive layer has a step back edge as shown in Fig. 1D.

7. Claims 1-8 and 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Albrecht et al. (US PAT. 6,052,258).

Albrecht et al. teach a process of making conductive connection between conductive layers comprising steps of: exposing portions of at least two conductive layers (150, 154) separated by a dielectric layer (152) as shown in Fig. 17; applying a conductive material (650) to the exposed portions of the conductive layers, the conductive material creating an electrical coupling between the conductive layers as shown in Fig. 17; and grounding (170, 172) at least one of the conductive layers to a controlled ground potential as shown in Fig. 18 (see also col. 3, line 26 to col. 4, line 8 and col. 7, line 13 to col. 8, line 63).

As per claim 2 the portions of the conductive layers are exposed by recessing at least one of the conductive layers and any dielectric layers positioned between the conductive layers, the conductive material overhanging an uppermost of the conductive layers as shown in Fig. 17.

As per claims 3 and 8 a material of one or more of the conductive layers (150) is copper and a material of one or more of the conductive layers is stainless steel (154).

As per claim 4 the conductive material is a conductive adhesive such as conductive epoxy.

As per claim 5 one of the conductive layer (150 or 170) is grounded to a controlled ground potential using one or more dedicated ground paths etched from one or more of the conductive layers as shown in Fig. 17.

As per claims 6 and 7 one of the conductive layer has a via formed therein, wherein the via or cross shaped is round as shown in Fig. 17.

As per claim 12 one of the conductive layer has a step back edge as shown in Fig. 17.

As per claim 13 the conductive material overhangs the stepped back edge as shown in Fig. 17.

As per claim 14 at least one of the exposed conductive layer is exposed as shown in Fig. 17.

As per claims 15 and 16 the conductive layers form part of a lead suspension (32) for suspending an electric component such as a magnetic head (30) shown in Figs. 2 and 3.

### ***Claim Rejections - 35 USC § 103***

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al.

Albrecht et al. teach all of the limitations including the conductive material made of a conductive epoxy, but fail to teach soldering process. In the manufacturing the magnetic head, the soldering process for the magnetic head element is used, which is

well known in the art. Therefore, since the soldering process for the magnetic head element is old and well known and used for manufacturing the magnetic head, the soldering process of any part of the magnetic had is used for electrically connecting between the conductive layers. In addition, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to apply the solder as recited in the claimed invention because Applicant has not disclosed that the solder as recited in the claimed invention provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Albrecht et al. because the solder as recited in the claimed invention would perform equally well such as conductive epoxy for electrically connecting between the conductive layers in Albrecht et al. Therefore, it would have been an obvious matter of design choice to modify the conductive epoxy of Albrecht et al. to obtain the invention as specified in claims 9-11.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Friday between 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul D Kim  
Examiner  
Art Unit 3729